



NVLAP Lab Code: 200952-0

Verification Services

Project No: 4786890401-1
 Report No: 4786890401-1a
 Report Issued Date: 2015-04-23



Test Report

Customer Company & Address:			
Elec-Tech International Co., Ltd. ADD: 1 JINFENG RD TANGJIAWAN TOWN XIANGZHOU DISTRICT ZHUHAIGUANGDONG P.R. CHINA 519085			
Contact Person:	Sean Luo		
Telephone:	0756-3639678	Fax/Email address:	0756-3639656

Manufacturer:	Elec-Tech International Co., Ltd.
Brand Name:	ETI, Commercial Electric
Country of Origin:	China
Country of Export:	United States, Canada
Product Description:	LED Strip Lighting Total Amount Of Light Source: 100 Pcs Manufacturer Of Light Source: Everlight Electronics., Ltd. Model Number Of Light Source: 62-217D
Model Number:	542832XX (where "xx" denotes 41~50, color temperature identifies 4000K)
Electrical Specification:	Rated voltage: 120 VAC and 120-277 VAC Frequency: 60 Hz and 50/60 Hz Wattage: 40 W

Test Laboratory & Address:			
UL Verification Services (Guangzhou) Co., Ltd. ADD: Building A1, 1F & 2F, Nansha Science and Technology Innovation Center, No. 25, South Huanshi Avenue , Nansha District, Guangzhou 511458, China			
Telephone:	+86 20 28667188	Fax:	+86 20 83486605

Receipt of Test Samples :	2015-04-02	Test Period:	2015-04-02 ~ 2015-04-23
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Tested By	Approved By
 /Jackson Zeng	 / Sean Xiao
Test Personnel Name & Signatory	Approval Name & Signatory

The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products. This report does not imply that the product(s) has met the criteria for certification.

Doc No: 10-CT-F0059
 Issue No: 1.1



Test Report

Statement of Results

Test Flow	Test Method	Sample ID (Lab)	Sample Serial No.	Pass/Fail/NA
1.	Integrating Sphere Test	2044204-S004	N/A	Evaluate by customer

Deviation from Test Method (if any)

N/A

Remark (if any)

1. This report shall not be used by the client to claim product endorsement by NVLAP, NIST or any agency of the US government.



Test Report

Test No. 1 : Integrating Sphere Test

Environmental Conditions

Temperature: 25.1 °C

Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
GVS-LE-PE001	Integrating Sphere	Before Use	Before Use
GVS-LE-FS019	Measurement Standard Lamp	08/19/2014	08/18/2015

Test Sample

2044204-S004

Test Method

The sample was tested according to the IES LM-79-2008.
Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25° C ± 1° C.
The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.

Test Results

Test Type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Orientation	Operate time (Min.)	Stabilization time (Min.)
Input	119.99	60	0.333	39.05	0.976	Base up	58	50

Test Type	CCT (K)	Luminous Flux (lm)	Color Rendering Index Ra	Luminous Efficacy (lm/W)
Output	4054	3629.9	88.6	92.96



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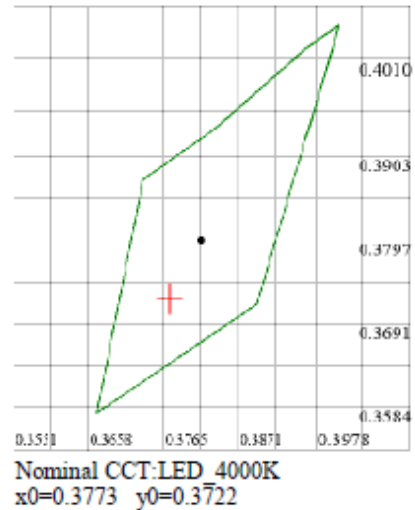
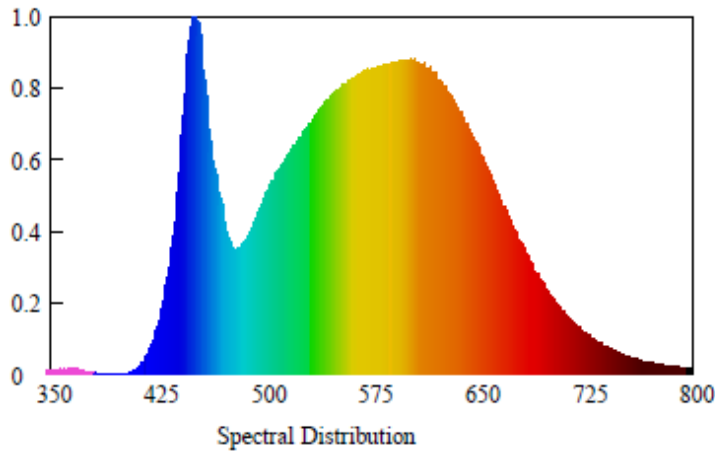
Test Report

Test Condition

Temperature: 25.1°C
Spectrum Range: 350-800 nm

RH: ----%
Scan Step: 1 nm

Spectroradiometric Parameters



Chromaticity Coordinates: $x=0.3773$ $y=0.3722$ $u'=0.2249$ $v'=0.4991$

Correlated Color Temperature: 4054 K

Dominant Wavelength: 578.0 nm(E)

Luminous Flux: 3629.904 lm

Purity: 0.2496

Chromaticity Difference: -0.00122Duv

Peak Wavelength: 452.9 nm

Color Ratio: Kr=37.4% Kg=52.7% Kb=9.9%

Bandwidth: 28nm

Radiant Flux: 11.145 W

Rendering Index: Ra=88.6

R1=88 R2=93 R3=95 R4=87 R5=87 R6=88 R7=91 R8=79

R9=47 R10=82 R11=85 R12=67 R13=90 R14=97 R15=86



Test Report

Test No.2: Goniophotometer Test

Environmental Conditions

Temperature: 25.1 °C

Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Calibration Due Date
GVS-LE-GS002	Goniophotometer	Before Use	Before Use
GVS-LE-FS019	Measurement Standard Lamp	08/19/2014	08/18/2015
GVS-LE-CA008	Digital Calliper	09/18/2014	09/17/2015

Test Sample

2044204-S004

Test Method

The sample was tested according to the IES LM-79-2008.
 Photometric parameters were measured using a type C goniophotometer and software.
 The ambient temperature shall be maintained at 25° C ± 1° C, measured at a point not more than 1 m from the sample and at the same height as the sample.
 The sample was operated at rated voltage and was stabilized before measurement. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 0.5° vertical intervals and 22.5° horizontal intervals.

Test Results

Test Type	Voltage (V AC)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Operate time (Min.)	Stabilization time (Min.)
Input	119.99	60	0.338	38.71	0.955	120	60

Test Type	Flux (lm)	Field angle (10%)		Beam angle (50%)		Zonal Lumen Result		Luminous Efficacy (lm/W)
		Horizontal Spread	Vertical Spread	Horizontal Spread	Vertical Spread	0°-60°	60°-90°	
Output	3625.3	n/a	160.5	134.5	114.8	59.9%	25.9%	93.66



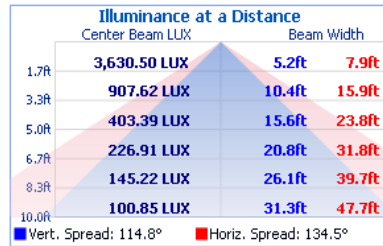
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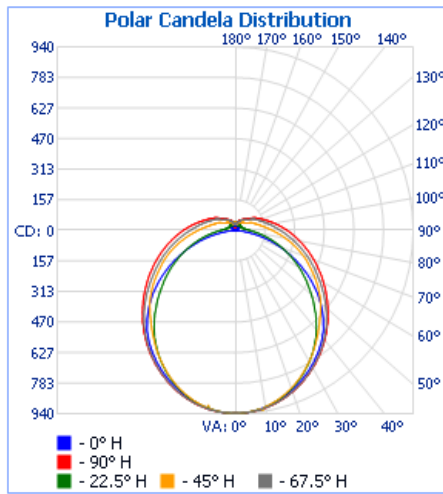
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Test Report

Beam Angle



Light Distribution Curve





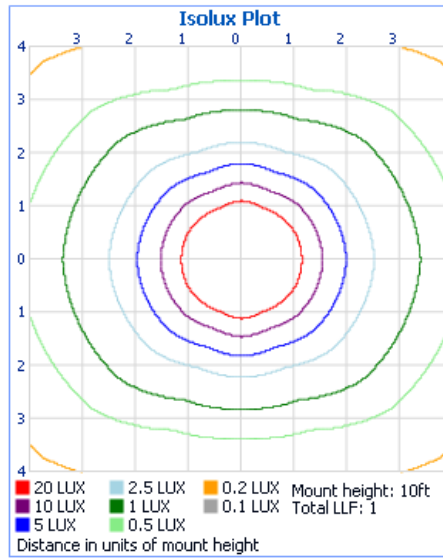
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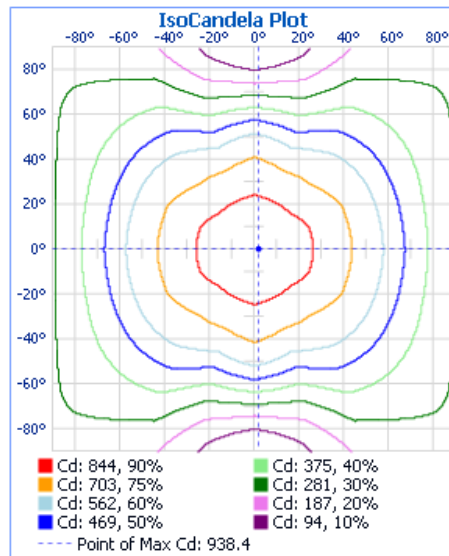
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Isolux Plot



IsoCandela Plot:





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Test Report

Zonal Lumen Tabulation

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	728.0	20.1%
0-40	1,197.8	33%
0-60	2,172.0	59.9%
60-90	937.5	25.9%
70-100	682.8	18.8%
90-120	347.4	9.6%
0-90	3,109.6	85.8%
90-180	515.7	14.2%
0-180	3,625.3	100%

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-5	22.4	0.6%	90-95	82.2	2.3%
5-10	66.3	1.8%	95-100	70.0	1.9%
10-15	107.9	3.0%	100-105	60.1	1.7%
15-20	145.9	4.0%	105-110	51.6	1.4%
20-25	179.0	4.9%	110-115	44.8	1.2%
25-30	206.5	5.7%	115-120	38.7	1.1%
30-35	227.7	6.3%	120-125	32.9	0.9%
35-40	242.1	6.7%	125-130	27.7	0.8%
40-45	249.5	6.9%	130-135	23.8	0.7%
45-50	249.8	6.9%	135-140	20.4	0.6%
50-55	243.6	6.7%	140-145	17.1	0.5%
55-60	231.4	6.4%	145-150	13.8	0.4%
60-65	213.8	5.9%	150-155	10.9	0.3%
65-70	193.0	5.3%	155-160	8.2	0.2%
70-75	169.3	4.7%	160-165	5.9	0.2%
75-80	143.9	4.0%	165-170	4.1	0.1%
80-85	119.3	3.3%	170-175	2.6	0.1%
85-90	98.2	2.7%	175-180	0.9	0%



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Intensity Data(cd)

Candela Table - Type C																	
	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	937	937	937	937	937	937	937	937	937	937	937	937	937	937	937	937	937
1	938	937	937	936	938	936	937	937	938	937	937	936	938	936	937	937	938
2	937	937	936	936	938	936	936	937	937	937	936	936	938	936	936	937	937
3	936	935	935	935	936	935	935	935	936	935	935	935	936	935	935	935	936
4	935	934	934	934	936	934	934	934	934	935	934	934	936	934	934	934	935
5	934	933	932	933	934	933	932	933	934	933	932	933	934	933	932	933	934
6	930	931	930	931	933	931	930	931	930	931	930	931	933	931	930	931	930
7	929	928	927	930	931	930	927	928	929	928	927	930	931	930	927	928	929
8	926	926	925	928	928	928	925	926	926	926	925	928	928	928	925	926	926
9	923	929	934	927	927	923	922	925	923	911	907	928	927	923	922	925	923
10	919	919	917	923	924	923	917	919	919	919	917	923	924	923	917	919	919
11	915	915	914	920	920	920	914	915	915	915	914	920	920	920	914	915	915
12	912	912	908	917	917	917	908	912	912	912	908	917	917	917	908	912	912
13	907	907	904	913	915	913	904	907	907	907	904	913	915	913	904	907	907
14	903	901	900	910	910	910	900	901	903	901	900	910	910	910	900	901	903
15	897	896	893	905	905	905	893	896	897	896	893	905	905	905	893	896	897
16	894	892	887	901	902	901	887	892	894	892	887	901	902	901	887	892	894
17	888	885	882	896	897	896	882	885	888	885	882	896	897	896	882	885	888
18	883	878	875	892	892	892	875	878	883	878	875	892	892	892	875	878	883
19	877	872	868	887	886	887	868	872	877	872	868	887	886	887	868	872	877
20	871	865	862	882	882	882	862	865	871	865	862	882	882	882	862	865	871
25	840	826	824	850	852	850	824	826	840	826	824	850	852	850	824	826	840
30	803	780	779	815	816	815	779	780	803	780	779	815	816	815	779	780	803
35	763	726	730	774	778	774	730	726	763	726	730	774	778	774	730	726	763
40	715	666	681	730	735	730	681	666	715	666	681	730	735	730	681	666	715
50	590	529	589	625	638	625	589	529	590	529	589	625	638	625	589	529	590
55	514	463	540	572	589	572	540	463	514	463	540	572	589	572	540	463	514
60	430	395	486	515	539	515	486	395	430	395	486	515	539	515	486	395	430
65	343	330	433	461	489	461	433	330	343	330	433	461	489	461	433	330	343
70	258	266	384	412	442	412	384	266	258	266	384	412	442	412	384	266	258
75	172	206	332	363	396	363	332	206	172	206	332	363	396	363	332	206	172
80	90	152	281	316	352	316	281	152	90	152	281	316	352	316	281	152	90
85	29	109	237	276	312	276	237	109	29	109	237	276	312	276	237	109	29
90	2	78	197	238	275	238	197	78	2	78	197	238	275	238	197	78	2
95	2	59	165	208	240	208	165	59	2	59	165	208	240	208	165	59	2
100	4	50	140	183	210	183	140	50	4	50	140	183	210	183	140	50	4
105	7	43	121	161	184	161	121	43	7	43	121	161	184	161	121	43	7
110	10	37	107	143	162	143	107	37	10	37	107	143	162	143	107	37	10
115	13	36	94	128	143	128	94	36	13	36	94	128	143	128	94	36	13
120	17	36	77	116	128	116	77	36	17	36	77	116	128	116	77	36	17
125	20	37	66	100	112	100	66	37	20	37	66	100	112	100	66	37	20
130	23	37	62	85	92	85	62	37	23	37	62	85	92	85	62	37	23
135	24	38	58	79	82	79	58	38	24	38	58	79	82	79	58	38	24
140	25	36	53	73	76	73	53	36	25	36	53	73	76	73	53	36	25
145	24	34	49	66	69	66	49	34	24	34	49	66	69	66	49	34	24
150	24	33	44	60	63	60	44	33	24	33	44	60	63	60	44	33	24
155	25	31	40	52	57	52	40	31	25	31	40	52	57	52	40	31	25
160	25	29	36	46	52	46	36	29	25	29	36	46	52	46	36	29	25
165	29	30	34	38	46	38	34	30	29	30	34	38	46	38	34	30	29
170	36	34	32	34	42	34	32	34	36	34	32	34	42	34	32	34	36
175	42	40	38	31	37	31	38	40	42	40	38	31	37	31	38	40	42
180	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38



Test Report

Photos of sample:

48.03"



*******END OF TEST REPORT*******